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Fig. 1

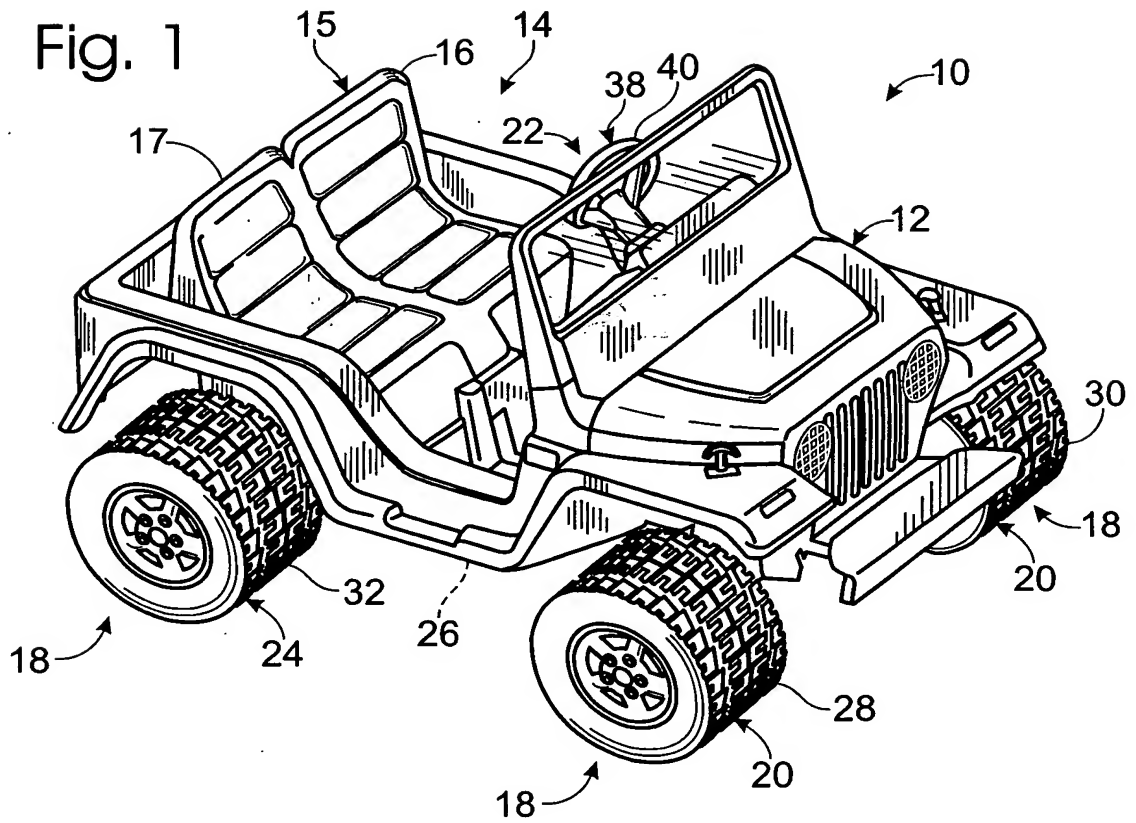


Fig. 2

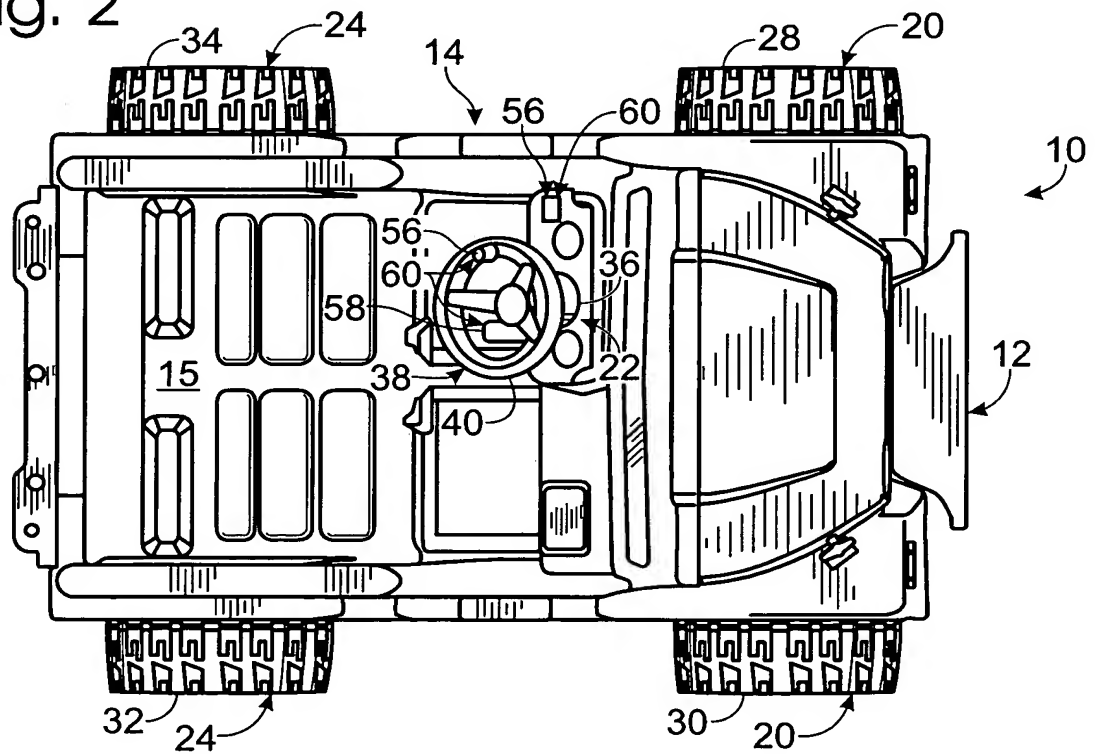


Fig. 3

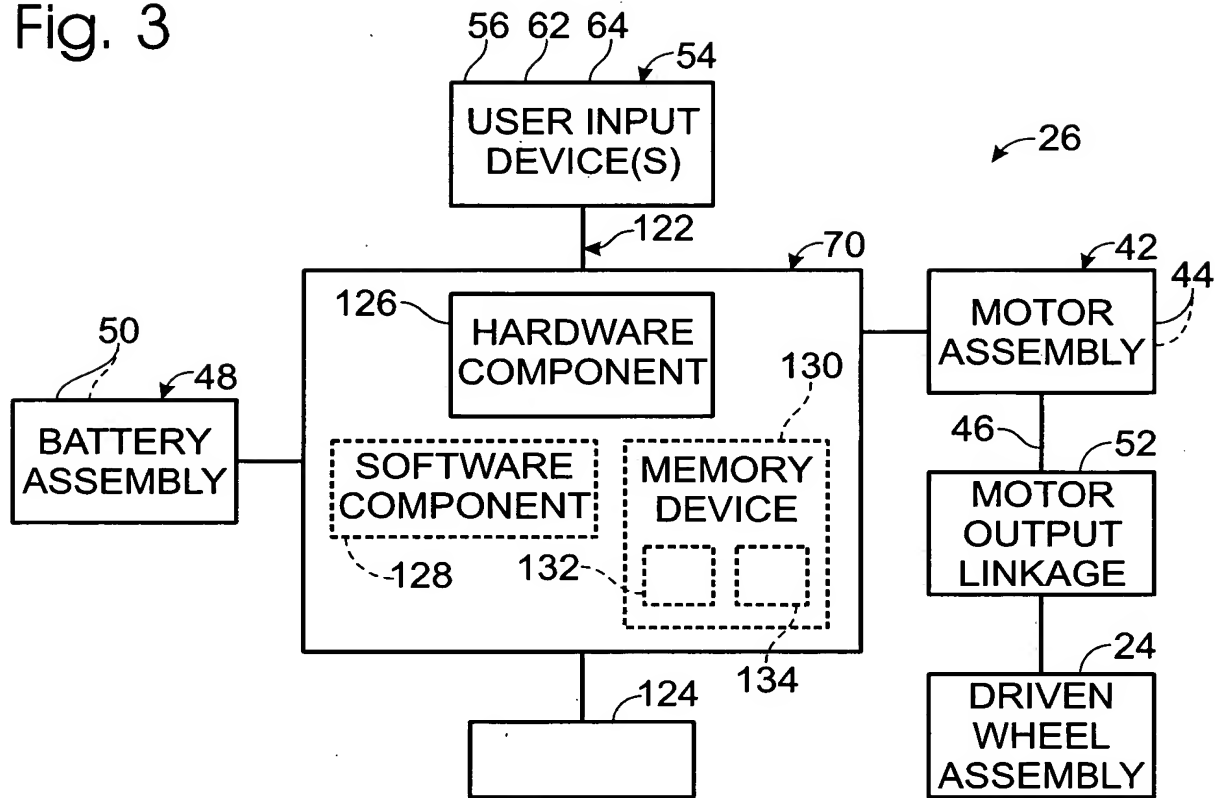


Fig. 4

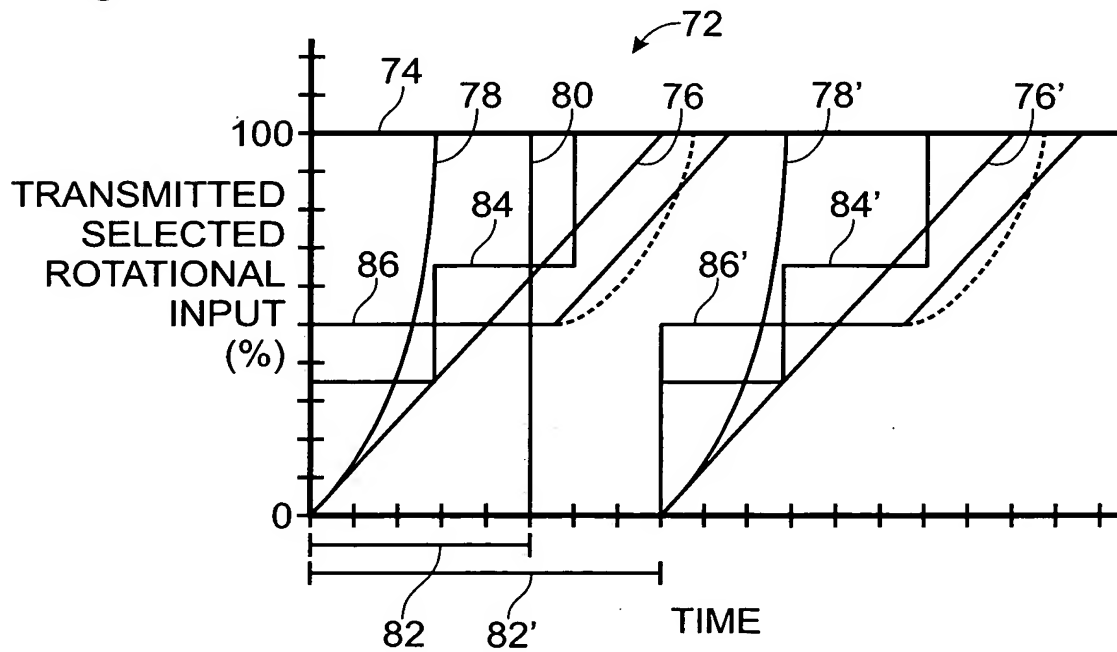


Fig. 5

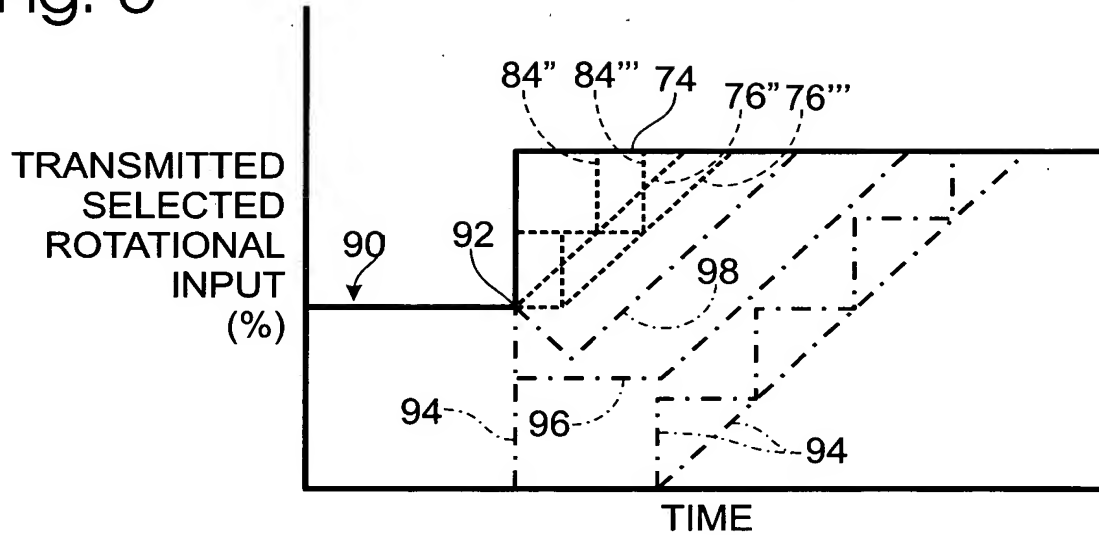


Fig. 6

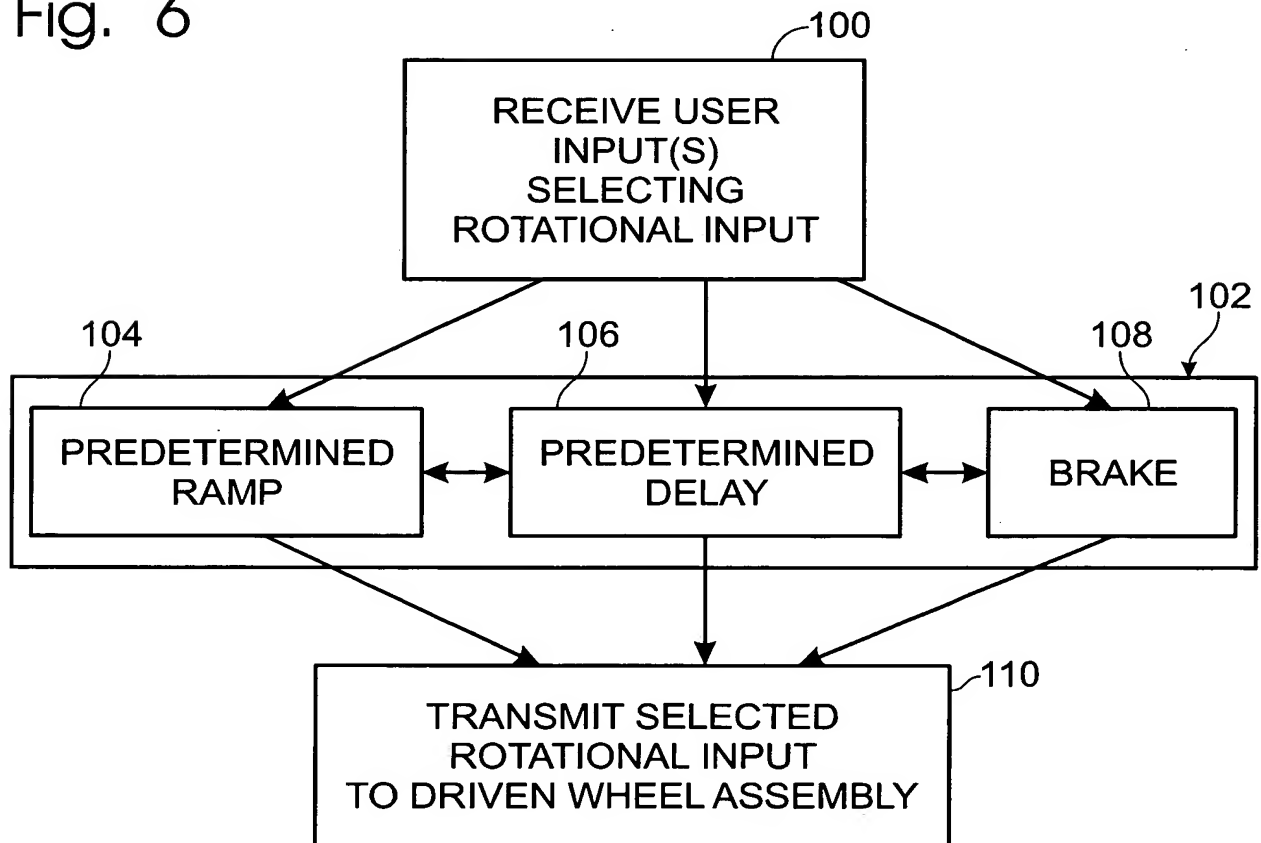
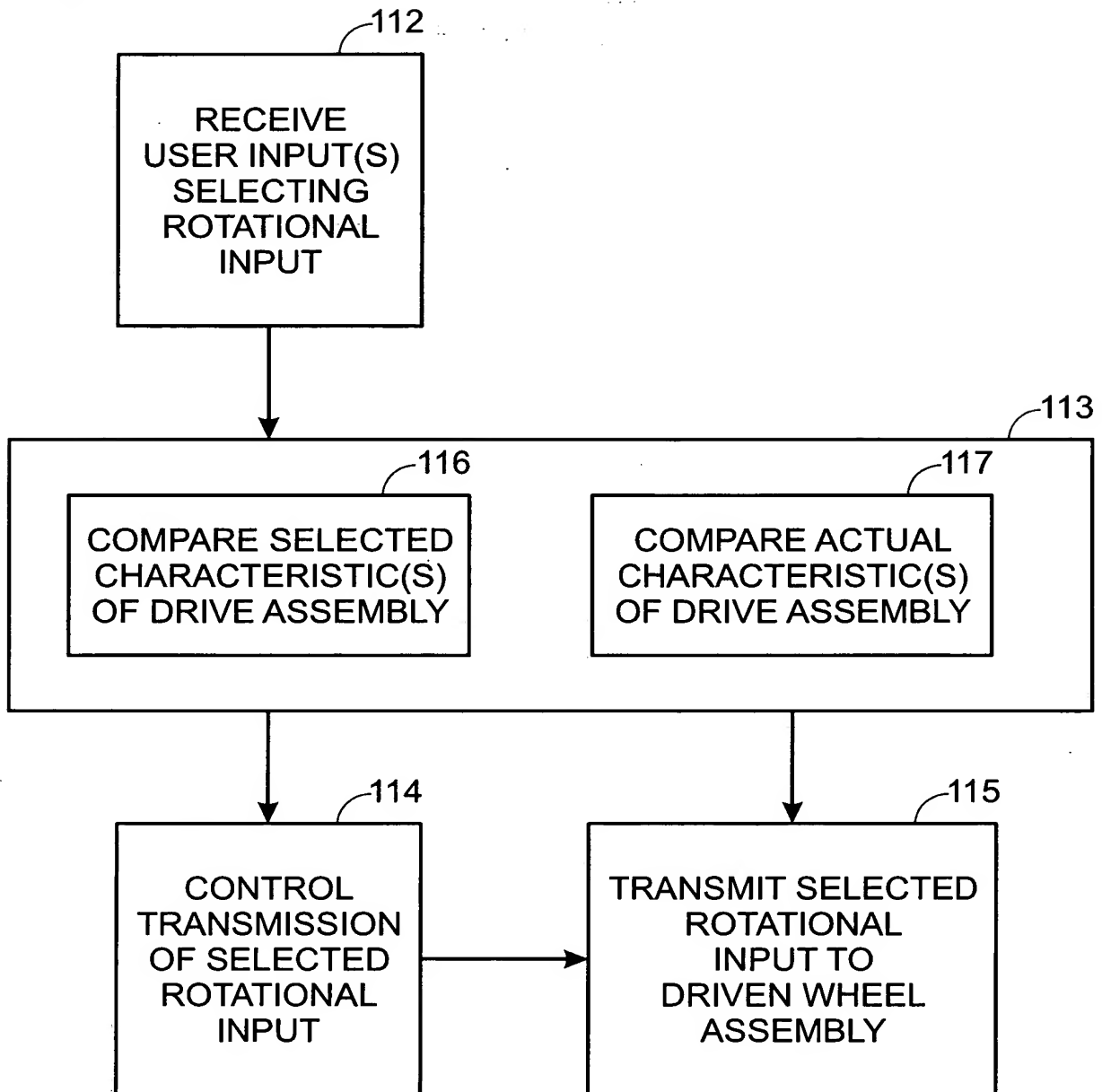
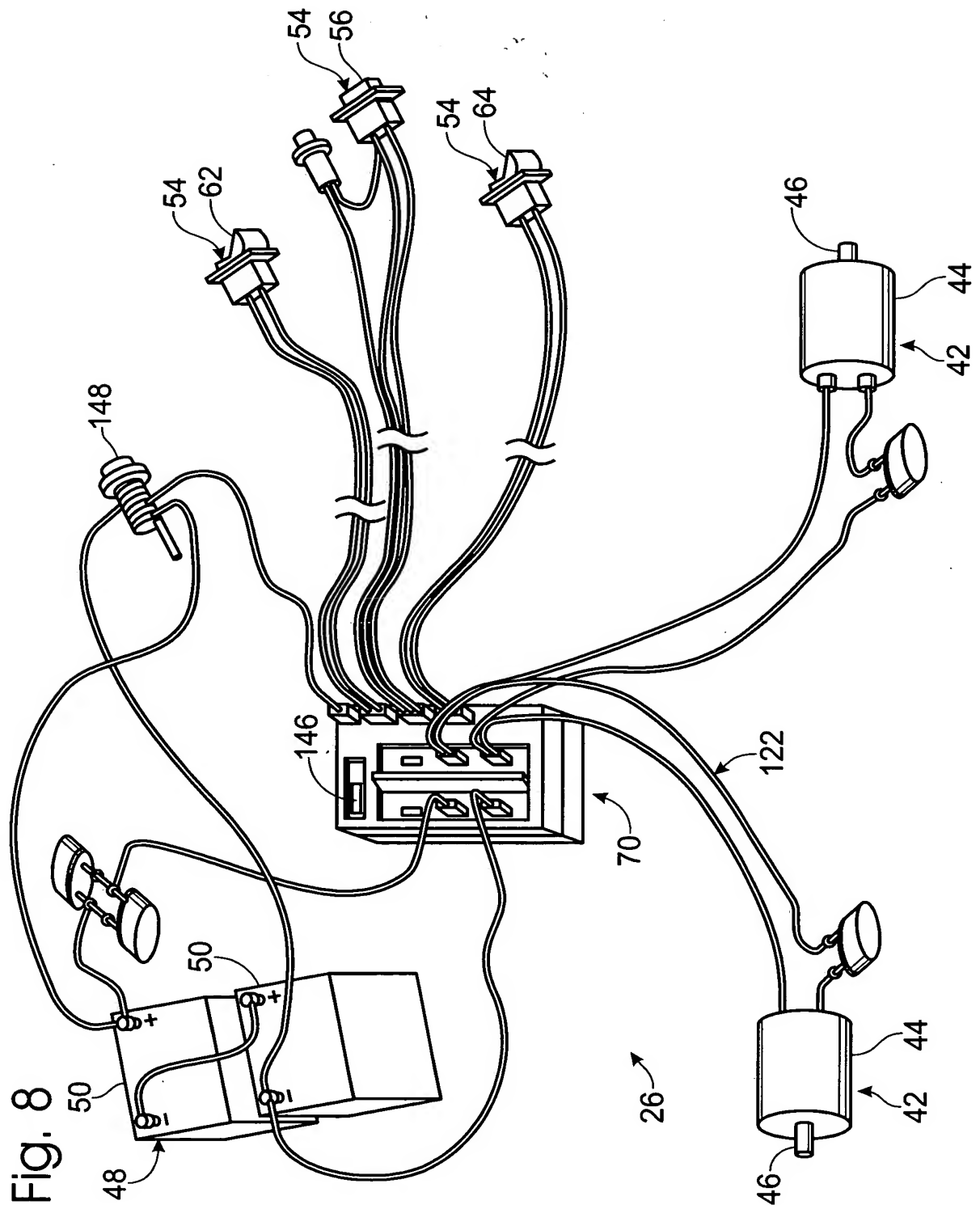


Fig. 7





**Fig. 9**

The diagram illustrates a microcontroller-based system for a motor control application. At the center is a PIC16C621 microcontroller (128) with pins labeled 1 through 18. The system includes a +24V power supply (12) and a +12V power supply (64). A reference voltage (REFERENCE V) is provided to the microcontroller via a network of resistors (62, 146) and a switch (146). The microcontroller's output pins (RB0/INT, RB1, RB2, RB3, RB4, RB5, RB6, RB7) are connected to a motor (44) through a series of transistors (2N4396, 2N4398, 2N4399) and diodes (2N4396, 2N4398, 2N4399). The motor is also connected to a ground (GND) through a network of resistors (122, 126, 128) and a switch (212). The microcontroller is powered by a +24V supply through a network of resistors (202, 204, 206, 208, 210) and diodes (2N4396, 2N4398, 2N4399). The microcontroller's input pins (RA0/AN0, RA1/AN1, RA2/AN2/ref, RA3/AN3, RA4/T0CK1, MCLR/vpp, Vss, RB0/INT, RB1, RB2, RB3, RB4, RB5, RB6, RB7) are connected to various components, including a network of resistors (122, 126, 128) and a switch (212). The microcontroller's output pins (RB0/INT, RB1, RB2, RB3, RB4, RB5, RB6, RB7) are connected to a motor (44) through a series of transistors (2N4396, 2N4398, 2N4399) and diodes (2N4396, 2N4398, 2N4399). The motor is also connected to a ground (GND) through a network of resistors (122, 126, 128) and a switch (212). The microcontroller is powered by a +24V supply through a network of resistors (202, 204, 206, 208, 210) and diodes (2N4396, 2N4398, 2N4399). The microcontroller's input pins (RA0/AN0, RA1/AN1, RA2/AN2/ref, RA3/AN3, RA4/T0CK1, MCLR/vpp, Vss, RB0/INT, RB1, RB2, RB3, RB4, RB5, RB6, RB7) are connected to various components, including a network of resistors (122, 126, 128) and a switch (212).

Fig. 10

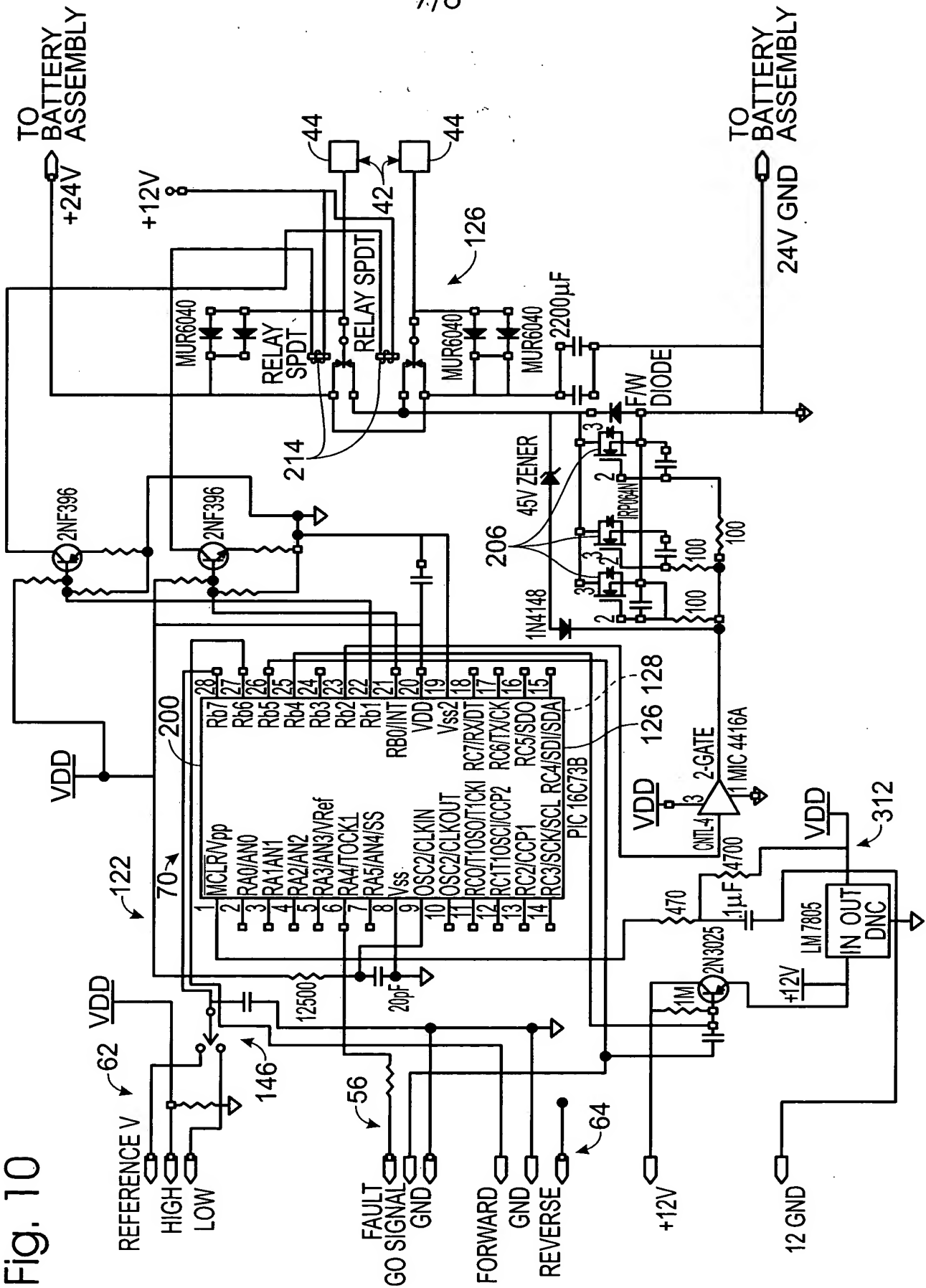




Fig. 11

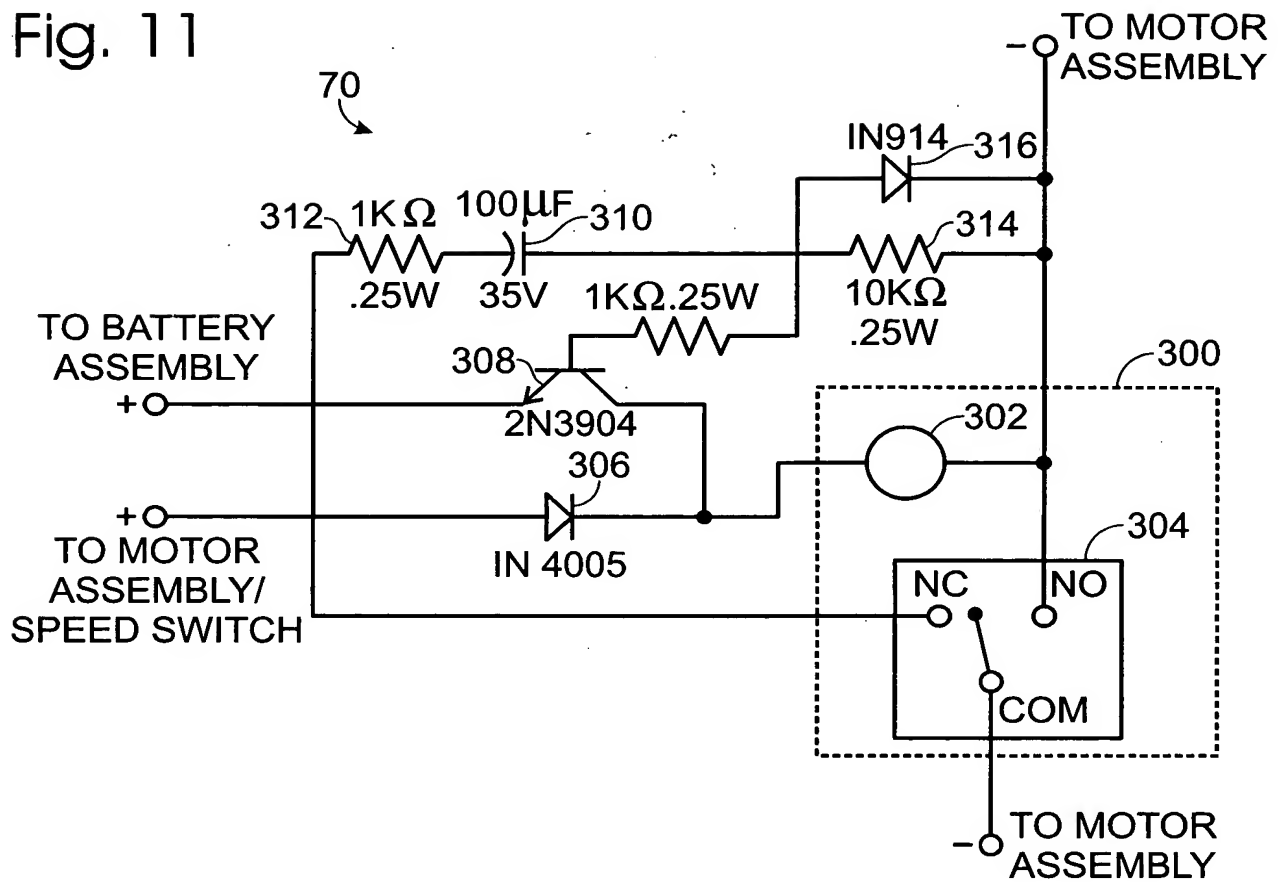


Fig. 12

